March 10, 1998

Ms. Sayuri Desai
Blue Spring Water Recycling Systems
382 E. California Blvd. #204
Pasadena, California 91106

ONSITE RECYCLING OF RINSE WATERS

Dear Ms. Desai:

Thank you for your letter dated January 29, 1998 regarding how the California hazardous waste regulations pertain to the Blue Spring recycling system. You request confirmation from the Department of Toxic Substances Control (DTSC) that this process is exempt from permitting requirements. In addition, you ask whether a client's pre-existing chrome reduction and/or cyanide destruction systems would be exempt from permitting requirements if they were used exclusively as part of the on-site closed loop recycling system.

Background

The enclosed description of the Blue Spring recycling system which you market states that rinse waters from flow-through rinse tanks containing metal ions, and other impurities are recycled back to the original rinse tanks. You note that the process is 100 percent closed-loop, with no water sent anywhere outside the system. You also state that at the end of the lifetime of the water (a few days to a few months), the spent water must be disposed of, and can typically be sewered. Your letter states that the basic equipment used in the process includes a sump tank, verticial precipitation tank, a sand filter, and reverse osmosis unit. Various pumps, pipes, valves and other equipment tie the system together so that it is one distinct, separate closed-loop system. The sump tank collects rinse waters from various rinse tanks, which are then pumped into a vertical precipitation tank. The metal ions are precipitated out of solution in this tank. The sand filter or other filtration device removes the precipitated metals from the water. The water is then sent to the reverse osmosis unit which purifies the water for reuse. The purified water is sent to the original rinse tanks. The reject stream from the reverse osmosis unit is sent back to the precipitation tank.

The literature you sent explaining your process states that the recovered solids may be sent to an ordinary landfill or they may be sent to a refinery for recovery of metals. Your literature states that the system is designed for integration with all rinse tanks used in metal-finishing operations such as electroplating, PCB manufacturing, metal-etching and metal passivation. Your documentation cautions, however, that the system is not designed to act as a water treatment system for handling large concentrations of metals and impurities found in plating baths or static dragout tanks. You state that your water recycling system recycles rinse waters that may be considered hazardous because they contain relatively low concentrations of metal ions or other toxic substances.

Since you state that your water recycling system recycles rinse waters that may be considered hazardous because they contain relatively low concentrations of metal ions or other toxic substances, we must point out that in order for a waste to be subject to either an onsite permit or be eligible for a recycling exclusion or exemption, that waste must be a hazardous waste. Pursuant to section 66262.11 of Title 22 of the California Code of Regulations (22 CCR), a generator is responsible for determining if his/her waste is hazardous or nonhazardous by testing representative samples of the waste using the methods set forth in Chapter 11, Division 4.5, 22 CCR and/or applying knowledge of the hazardous characteristics in light of the materials of processes used to generate the waste. Using these methods, the waste may be identified as either Resource Conservation and Recovery Act (RCRA) or non-RCRA waste. We note this primarily because you mention that the rinse waters may only contain "relatively low concentrations of metal ions or other toxic substances." If the generator accurately determines, according to the provisions in section 66262.11, that the water does not contain enough of these constituents to render the rinsewaters hazardous, they need not be managed as hazardous waste. In that case, the operation of the Blue Spring recycling system would not need authorization (or any relevant permitting exemption) from DTSC. Likewise, if the precipitated solids contain concentrations of metals which exceed regulatory thresholds pursuant to 22 CCR, then those solids must be managed as hazardous waste.

Status of the Material under Federal Law

There is a combination of federal regulations, which together, exempt onsite recycling of RCRA hazardous waste from federal permitting requirements. 40 CFR (Code of Federal Regulations) section 261.6(c)(1) exempts the recycling process itself from permit requirements. Additionally, generators may accumulate their hazardous wastes onsite in tanks and/or containers less than 90 days without meeting permit requirements [section 262.34 (a)]. The

United States Environmental Protection Agency (U.S. EPA) has stated [51 FR 10168 (March 24, 1986)] that the federal permit exemption extends to generators who treat their hazardous wastes in accumulation tanks and/or containers, regardless of whether that treatment involves any recycling. Therefore, U.S. EPA would not require a RCRA permit for the onsite recycling of rinsewaters.

Status of the Material under State Law

HSC (Health and Safety Code) section 25143.2(c)(2) provides that any recyclable material may be recycled at a facility which is not authorized pursuant to applicable hazardous waste facility permit requirements (including tiered permitting requirements) if the following requirements are met:

- The material is recycled and used at the same facility at which the material was generated.

- The material is recycled within 90 days of its generation.

- The material is managed in accordance with all applicable requirements for generators of hazardous wastes under HSC Chapter 6.5 and the regulations adopted by the Department (Division 4.5, Title 22 of the CCR).

- None of the provisions found in subdivision (e) of HSC section 25143.2 supersede the exemption.

- The recordkeeping and related requirements of subdivision (f) of HSC section 25143.2 are met.

In addition, the reporting requirements found in HSC section 25143.10 will have to be met if the owner/operator recycles more than 100 kilograms of recyclable material in any month under the claim that the recycling system is exempted from permit requirements as provided in HSC section 25143.2.

You are correct in your assumption that if the owner/operator's chrome reduction and/or cyanide destruction equipment were incorporated into the closed loop rinsewater recycling system, then those activities would also be exempt from permit requirements.

Conclusions

In summary, if owner/operators use Blue Springs' water recycling units to recycle their rinsewaters, they may do so without meeting otherwise applicable DTSC permit requirements (including tiered permitting) if applicable conditions of HSC section 25143.2(c)(2) are met and a significant amount of the water is reused beneficially at that location. All wastes generated from the recycling procedures would, as noted above, have to be properly characterized and managed appropriately.

Excerpts from the recycling statutes are enclosed for your convenience. Please contact me at (916) 324-4754 or the address above if I can be of further assistance.

Sincerely,

[Original Signed]
Diana Peebler
Resource Recovery Section

Enclosure

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